

ABSTRACT OF THE DISCLOSURE

A power IC for an automobile engine control unit incorporating at least one semiconductor device comprising an N-channel insulated-gate field-effect transistor formed on an SOI substrate, having an N-type layer having a concentration higher than a concentration of an N-type layer in contact with a p-body layer contacting a gate oxide film of the transistor. The high concentration N-type layer is formed in a region covering at most 95% of the source-drain distance between the p-body layer and a drain electrode of the transistor in the silicon substrate over an interface of a buried oxide film, the silicon substrate being in contact with both the field oxide film and the high concentration N-type layer contacting the drain electrode.